# Report of Geologic Reconnaissance

## Neuman Parcel Map
## 18489 Ramona View Drive
## Ramona, CA 92065
## TPM 20962, ER 05-09-021

*Prepared by:*

County of San Diego
Department of Planning and Land Use
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**May 27, 2009**

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**FIGURES**



**ATTACHMENT:** Site Photographs

# 1 INTRODUCTION

The County has prepared this report on behalf of the project applicant for the purpose of satisfying the requirement for a geologic reconnaissance of the site to address the potential hazard of rockfall on the proposed development.

The scope of work for this geologic reconnaissance included:

- Review of available published geologic maps relevant to the project area.
- Reconnaissance of the site on Friday, April 3, 2009 to evaluate geologic conditions apparent from surface features, including rockfall potential.
- Preparation of this report summarizing our observations and conclusions with respect to geologic conditions at the site.

# 2 LANDSLIDES/ROCKFALL ANALYSIS

The *Guidelines for Determining Significance – Geologic Hazards* (County of San Diego, 2007) contains the following criterion for the identification of a potentially significant impact:

***The project lies directly below or on a known area subject to rockfall which could result in collapse of structures***

## 2.1 Site Location and Description

The project is located on 18489 Ramona View Drive in the unincorporated community of Ramona in San Diego County (Figure 1). The site is 39.4 gross acres and is currently developed with two residential structures (and outbuildings) at the base of steeply sloping mountainous terrain. South and west facing slopes in excess of 25% in grade with sporadic outcrops of granitic rocks occur over the majority of the site and extend off-site to the north and east. Proposed development of two additional residential structures are planned on parcels 3 and 4 as shown on the Preliminary Grading Plan dated October 17, 2008 (Figure 2). Elevations at the site range from 1,625 feet above mean sea level (MSL) in the southwest corner of the site to 1,980 feet MSL on the slope in the northeast corner of the site. Offsite slopes to the northeast extend to 2,248 feet MSL. Access to the property is provided by an unimproved driveway off of Ramona View Drive.

## 2.2 Site Geology

The site is located within the Peninsular Ranges Geomorphic Province of California and Baja California. This province, which stretches from Los Angeles to the tip of Baja California, is characterized by a series of northwest trending mountain ranges separated by subparallel fault zones, and a coastal plain of subdued landforms. The majority of the site is located on steeply sloping mountainous terrain, which is underlain by granitic rock covered by variable thicknesses of residual soil and colluvium. The regional geology is summarized on the Geologic Map on Figure 3 (CGS, 2006). Generalized descriptions of the geologic units observed at the site include:

**Japatul Valley Tonalite (Cretaceous)**: Light gray, medium to coarse crystalline rocks were observed as outcrops/boulders located sporadically on hillsides throughout the site.

**Colluvium and Residual Soil:** Colluvium is an accumulation of transported residual soil and weathered formational material found on slopes. Colluvium forms as a result of gravitational, down-slope creep or sheet wash on slopes. Residual soil develops in place and is generally more exposed in flatter topography. The colluvium and residual soil are similar in appearance and were observed on the surface throughout the site (except where rock outcrops were present). It generally consists of fine to coarse grained silty sand that varies from light brown to reddish brown in color. Since rock outcrops are scattered throughout the slopes, it is anticipated that the thickness of colluvium/residual soil on the slopes is generally shallow. Thicker deposits of colluvium/residual soil are anticipated to occur in the lower elevation areas of the slope in the western and southern portion of the site.

## 2.3 Evaluation of Geologic Hazards

### 2.3.1 Rockfall

**Parcel 3:** Boulders/ outcrops observed during our field visit (Figure 4) that could potentially affect the proposed building pad on Parcel 3 appeared to be buried to a significant degree and not sitting directly on the ground surface, and/or irregularly shaped with their long axis perpendicular to the slope face. Based on the observed character of the granitic boulders and outcrops, the potential for rockfall to adversely affect the proposed building pad on Parcel 3 is less than significant.

**Parcel 4:** Several boulders were observed in a cluster approximately 125 feet above the proposing building pad on Parcel 4 which could adversely affect the proposed building pad area (Figure 4, Photograph 1). Other boulders/ outcrops observed during our field visit that could potentially affect the proposed building pad on Parcel 4 appeared to be buried to a significant degree and not sitting directly on the ground surface, and/or irregularly shaped with their long axis perpendicular to the slope face.

## 2.4 Conclusions and Recommendations

Based on the results of this reconnaissance to evaluate the potential for rockfall, there is one area above the proposed building pad on Parcel 4 which contains loose rocks/boulders which require mitigation. The rocks present on the remainder of the steep slopes observed above proposed building pads on Parcels 3 and 4 do not constitute a substantial hazard. The proposed building pads on Parcels 3 and 4 are safe for human occupancy in their present locations provided the hazardous rocks identified above the proposed building pad on Parcel 4 are addressed as recommended below:

**Mitigation for Geologic Hazards:** It is recommended that the Tentative Parcel Map be subject to the following condition of approval:

**GEOLOGIC HAZARDS [DPLU, PCC] [MA] [DPLU FEE]**
**Intent**: In order to avoid rockfall hazards that threaten the proposed building site, the boulders located in a hazardous position shall be removed.
**Description of requirement:** The boulders identified above the proposed building pad on Parcel 4 in the April 22, 2009 Report of Geologic Reconnaissance prepared by the Department of Planning and Use (DPLU) shall be removed or relocated.
**Documentation:** A letter of certification shall be provided to the County by a California Registered Professional Engineer or Certified Engineering Geologist, which states that the identified rockfall hazards at the site have been mitigated in conformance with this condition. The certification letter shall be accompanied with photodocumentation before and after rock removal is completed.
**Timing:** The above certification letter shall be provided prior to recordation of the Final Parcel Map.
**Monitoring:** The DPLU Permit Compliance Coordinator shall review the rockfall hazard certification report for compliance with this condition.

## 3 LIMITATIONS OF INVESTIGATION

The reconnaissance was performed using the degree of care and skill ordinarily exercised, under similar circumstances, by reputable geotechnical consultants practicing in this or similar localities. No warranty, expressed or implied, is made as to the conclusions and professional opinions included in this report.

Changes in the condition of the property can occur with the passage of time, whether due to natural processes or the work of man on this or adjacent properties. In addition, changes in applicable standards of practice may occur from legislation or the broadening of knowledge. Accordingly, the findings of this report may be invalidated wholly or partially by changes outside our control. Therefore, the report is subject to review and should not be relied upon after a period of three years. Other geotechnical considerations outside the narrow scope of this investigation may exist in development of the building pad area which was not evaluated as part of this report.

James J. Bennett
P.G. #7707 (Expires: 4/30/10)
Geologist, Project Planning

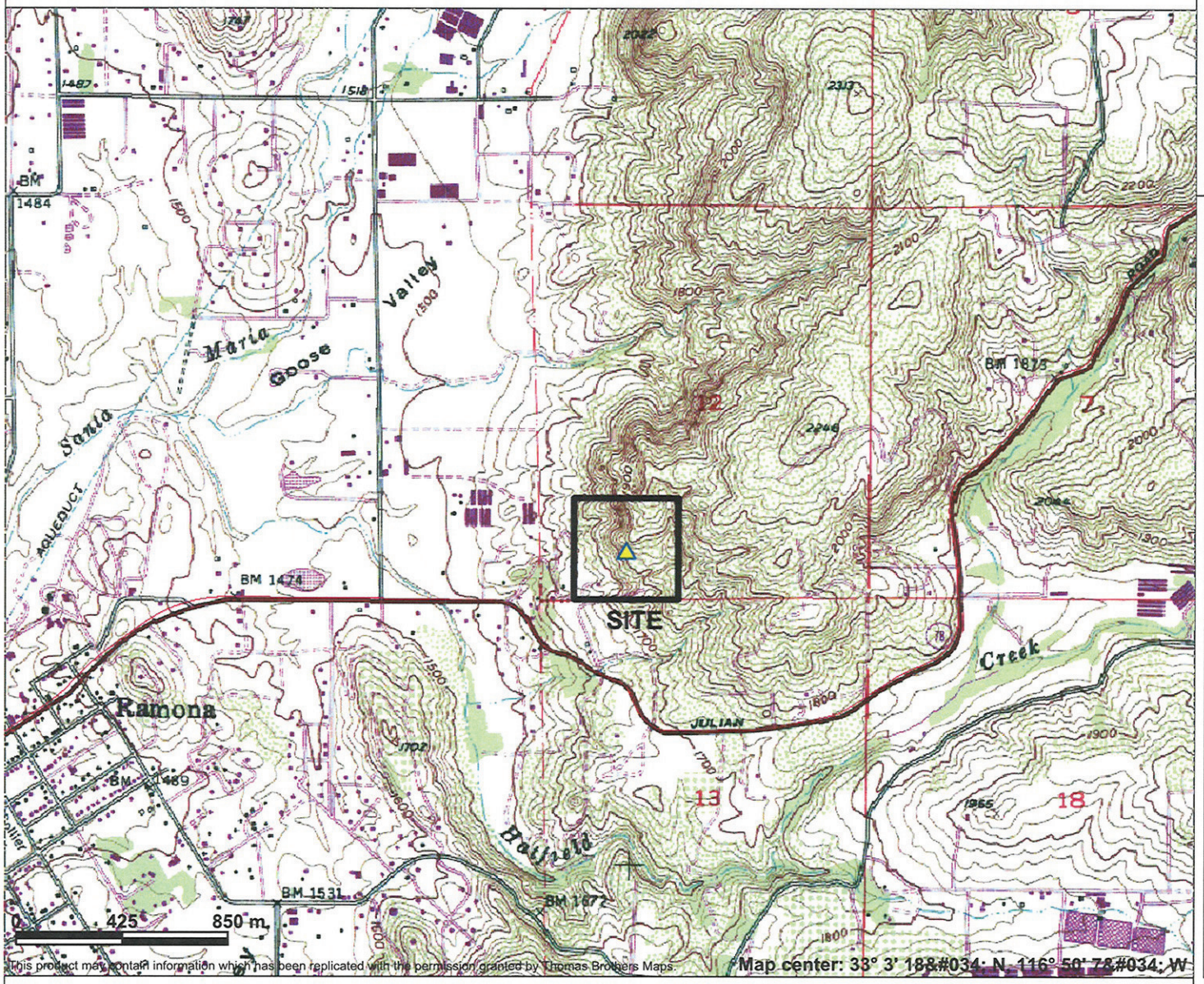
Brian R. Baca
C.E.G. #1922 (Expires: 2/28/11)
Engineering Geologist, Project Planning

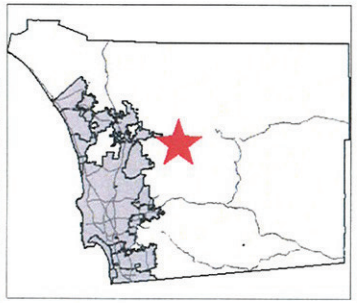
# 4 REFERENCES

County of San Diego, Guidelines of Determining Significance and Report Format and Content Requirements, Geologic Hazards, July 30, 2007

California Geological Survey (CGS), 2006. Geologic Map of the Ramona 7.5' Quadrangle: San Diego County, CA: A Digital Database, Version 1, by Todd, V.R, Busch, L.L., Foster, B.D., Hernandez, J.L., and Tan, S.S., Scale 1:24,000.

# Figure 1 - Site Location



## Legend

- Highways
- Freeways
- USGS 7.5 Min Topo Quad

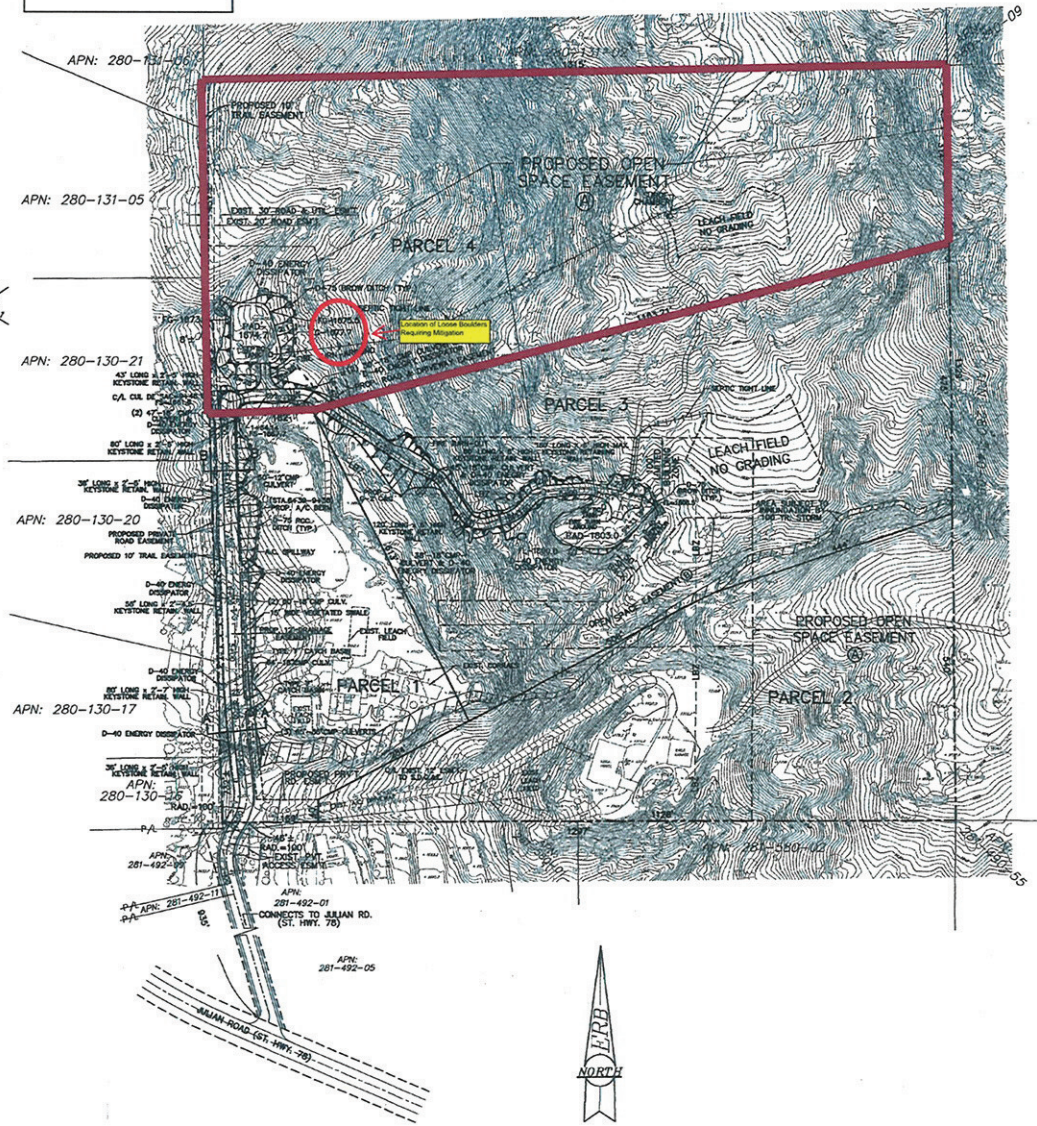
Scale: 1:23,883

Map center: 33° 3' 18" N, 116° 50' 7" W



County of San Diego Department of Planning and Land Use DPLU GIS SanGIS

# Figure 2 PRELIMINARY GRADING PLAN

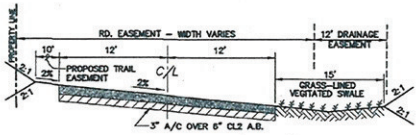



## PRIVATE ROAD GRADES

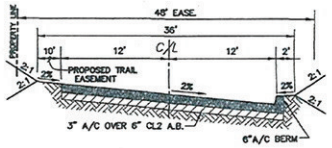
| STA. | ELEV. | SLOPE |
|---|---|---|
| 1+00 | 1637.41 | -2.02% |
| 2+00 | 1634.63 | 2.74% |
| 3+00 | 1634.60 | -1.46% |
| 4+00 | 1638.83 | 3.77% |
| 5+00 | 1636.53 | -2.30% |
| 6+00 | 1636.82 | 0.74% |
| 7+00 | 1640.00 | 4.00% |
| 8+00 | 1643.15 | 6.29% |
| 9+00 | 1657.10 | 11.66% |
| 9+29.38 | 1681.79 | 7.05% |

## PRIVATE DRIVEWAY GRADES

| STA. | ELEV. | SLOPE |
|---|---|---|
| 0+74.42 | 1663.05 | 9.87% |
| 1+00 | 1665.48 | 10.30% |
| 2+00 | 1681.40 | 19.00% |
| 3+00 | 1700.00 | 19.00% |
| 4+00 | 1718.60 | 19.00% |
| 5+00 | 1737.20 | 19.00% |
| 6+00 | 1755.80 | 19.00% |
| 7+00 | 1774.50 | 19.00% |
| 8+00 | 1793.00 | 19.00% |
| 8+41.18 | 1804.00 | 6.72% |




SECTION A–A
PROPOSED PVT. ROAD
NO SCALE




SECTION B–B
PROPOSED PVT. ROAD
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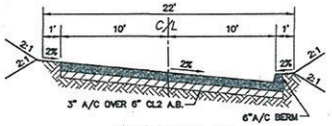
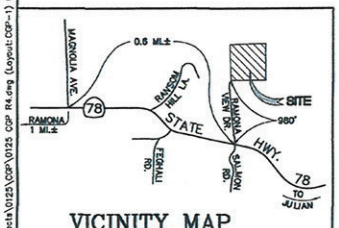



SECTION C–C
PROPOSED PVT. DRIVEWAY
NO SCALE




## VICINITY MAP

NO SCALE
THOS. BROS., P. 1153, B-4

## LEGEND:

| | |
|---|---|
| TYP. DRIVEWAY (R.S.Dwg.) (G-14) | |
| 2:1 CUT SLOPE | |
| 2:1 FILL SLOPE | |
| PARCEL MAP BOUNDARY | |
| PROPOSED LOT LINE | P/L |
| CENTERLINE | C/L |
| PARCEL NUMBER | PCL 1 |
| SPOT ELEVATIONS | FG= 235.5 |
| ENERGY DISSIPATOR (D-40) | |
| PAD DRAINAGE | 1% MIN. |
| DRAINAGE DITCH (D-75) | |
| RETAINING WALL | |
| A/C PAVEMENT | |
| PCC PAVEMENT | |
| VEGETATED SWALE | |
| LIMITED BUILDING ZONE | LBZ |

## PREPARED FOR:

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RAMONA, CA. 92064
(760) 788-1895

## PREPARED BY:

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(858) 748-2130

CHARLES S. LITTLE
R.C.E. 65129 EXP: 9/30/09
DATE: 10/17/08

REGISTERED PROFESSIONAL ENGINEER — CHARLES STANLEY LITTLE — C 65129 — Exp. 9/30/09 — CIVIL — STATE OF CALIFORNIA

## SITE ADDRESS

18469 RAMONA VIEW DR.
RAMONA, CA. 92064

## A.P.N.

280-130-03

## GENERAL NOTES:

1. AERIAL TOPOGRAPHY, FLOWN ON 12-06-04 WAS USED FOR THE PREPARATION OF THIS MAP. THIS PLAN IS PROVIDED TO ALLOW FOR FULL AND ADEQUATE DISCRETIONARY REVIEW OF A PROPOSED DEVELOPMENT PROJECT. THE PROPERTY OWNER ACKNOWLEDGES THAT ACCEPTANCE OR APPROVAL OF THIS PLAN DOES NOT CONSTITUTE AN APPROVAL TO PERFORM ANY GRADING SHOWN HEREON, AND AGREES TO OBTAIN VALID GRADING PERMISSIONS BEFORE COMMENCING SUCH ACTIVITY.
2. BASIS OF BEARING– PARCEL MAP– 10743
3. BASIS OF ELEVATIONS– COUNTY BM "R-36-A" ELEVATION– 1657.697
4. SEE SHEET #3 FOR TYPICAL PAD DETAILS
5. PROPOSED OPEN SPACE EASEMENT (A) – BIOLOGICAL
6. PROPOSED OPEN SPACE EASEMENT (B) – SENSITIVE RESOURCES

## GRADING TABULATION

AMOUNT OF CUT: 5500 CUBIC YARDS
AMOUNT OF FILL: 5500 CUBIC YARDS.
AMOUNT OF EXPORT/IMPORT SOIL: 0 CUBIC YARDS.
MAXIMUM HEIGHT OF CUT SLOPE: 19 FEET.
MAXIMUM HEIGHT OF FILL SLOPE: 25 FEET.

NOTE: THE QUANTITIES SHOWN ON THESE PLANS ARE FOR PLANNING PURPOSES ONLY. THE CONTRACTOR SHALL PERFORM HIS OWN CALCULATIONS TO SATISFY HIMSELF AS TO THE ACTUAL QUANTITIES TO BE MOVED.

## PRELIMINARY GRADING PLAN NOTE

THIS PLAN IS PROVIDED TO ALLOW FOR FULL AND ADEQUATE DISCRETIONARY REVIEW OF A PROPOSED DEVELOPMENT PROJECT. THE PROPERTY OWNER ACKNOWLEDGES THAT ACCEPTANCE OR APPROVAL OF THIS PLAN DOES NOT CONSTITUTE AN APPROVAL TO PERFORM ANY GRADING SHOWN HEREON, AND AGREES TO OBTAIN A VALID GRADING PERMIT BEFORE COMMENCING SUCH ACTIVITY.

SHEET 1 OF 3

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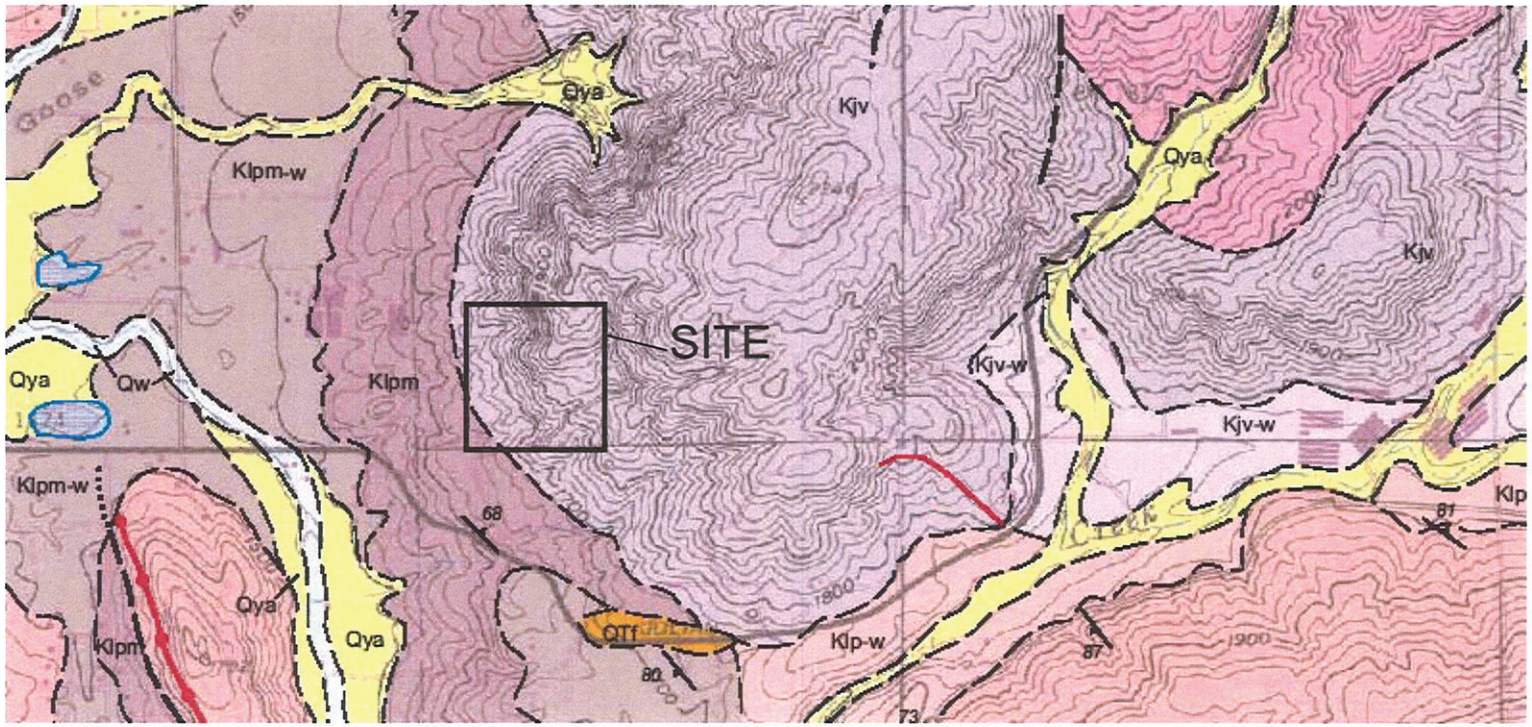



## ON-SITE GEOLOGIC FORMATIONS

| | |
|---|---|
| Kjv | Japatul Valley Tonalite (Cretaceous) |
| Klpm | Tonalite of La Posta, Mafic Phase (Cretaceous) |

Modified from: CGS, Geologic Map of Ramona 7.5' Quadrangle, 2006.

**Figure 3**

**Geologic Map**

**TPM 20962 Neuman**

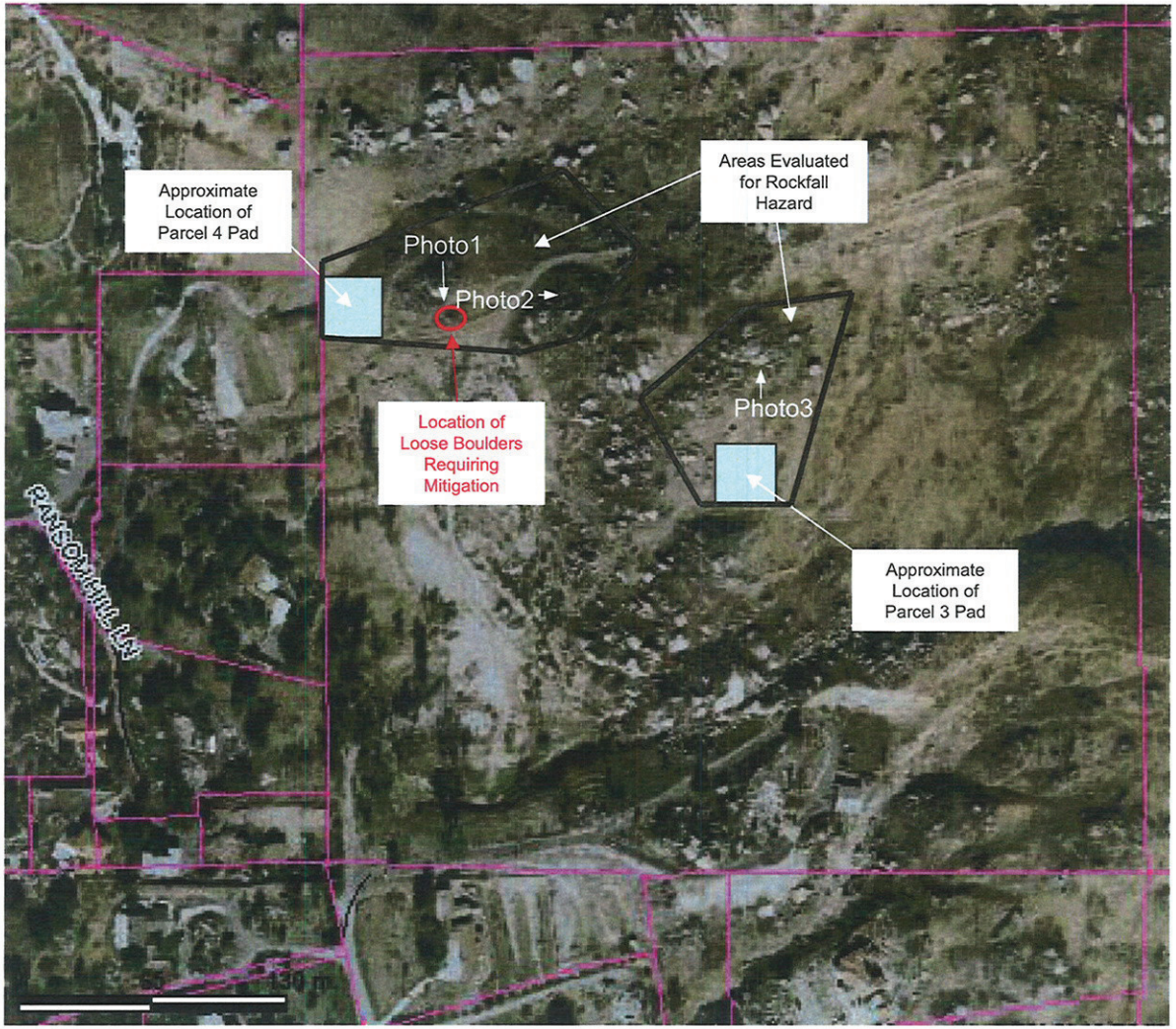
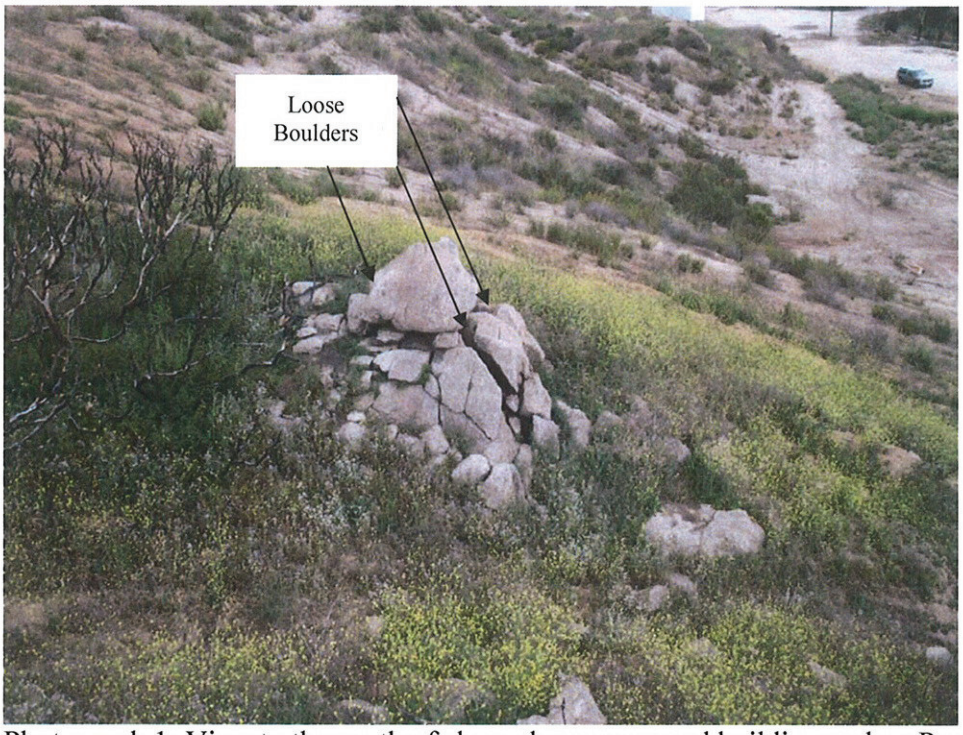



**Figure 4**

**Rockfall Hazards Identified**

**TPM 20962 Neuman**




Photograph 1: View to the south of slope above proposed building pad on Parcel 4 with loose boulders shown that require mitigation.

Photograph 2: View to the east of boulders/outcrops above the proposed building pad on Parcel 4.

Photograph 3: View to the north of boulders/outcrops above the proposed building pad on Parcel 3.